Amendments to the Drawings

Attached Replacement Figure 1 has been amended by inserting the words "PRIOR ART".

Remarks/Arguments

Applicant thanks the Examiner for the Office Action mailed October 18, 2005. Claims 1-15 were examined and remain pending, with claims 1, 3, 8, and 10 being independent. Applicant has not added or cancelled any claims, and has amended claim 3 for purposes of clarity. Accordingly, Applicant requests reconsideration of claims 1-15 in light of the remarks below.

The Office Action objects to the drawings, stating that Figure 1 should be designated as prior art. Applicant has amended the drawings accordingly.

Claims 1, 3, 5-8, and 10-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Anandakumar (6,801,499). Applicant respectfully traverses the rejection. As an introduction to the remarks that follow, Applicant summarizes in the following paragraphs an implementation described in Applicant's specification.

In at least one implementation, a group of variable length packets are formed, parity bits are generated for the group of packets, and the parity bits form a separate packet (see, e.g., specification at page 2, lines 3-11). To generate the parity bits, the variable length packets may be arranged in rows as indicated in Figures 3-6, and a separate parity bit may be generated for the variable number of bits in any given column (see, e.g., specification at page 2, lines 3-11; and page 10, lines 12-21).

Before generating the parity bits, however, all high priority packets are "virtually" replicated in their row. This is shown, for example, in the virtual repetition 340 of Figure 3 which occupies the second half of the row beginning with the high priority packet 330. This is also shown, for example, in the dotted boxes of Figure 5 occupying the second half of the row for Packet 2. The virtual replications are referred to as "virtual" because the virtual replications are not transmitted. The specification explains that "[t]he term 'virtual replication' refers to a replication of the data at the transmitter for encoding purposes, such that replicated data is not actually transmitted over a communications channel" (specification at page 9, lines 4-6).

The receiver receives the original group of variable length packets, and the packet containing the parity bits, but does not receive the virtual replications (because the virtual replications are not transmitted--see also specification at page 9, lines 13-17). However, even without receiving the virtual replications, the receiver is able to be more robust to errors in the high priority packets because some of the received parity bits are based on the

virtual replications (see, e.g., the example described in the specification at page 10, line 5 - page 11, line 13).

With respect to independent claims 1 and 8, the portions of Anandakumar cited and applied by the Office Action do not disclose or suggest, at least, "replicating ... packets ... to form virtual replications" (claims 1 and 8, emphasis added). Rather, the applied portions of Anandakumar describe the creation and transmission of diversity packets that may include error correction information, but the error correction information is presumably based on data that is transmitted because there is no description of a "virtual replication[]" (claims 1 and 8), that is, a "replication of the data at the transmitter for encoding purposes, such that replicated data is not actually transmitted over a communications channel" (specification at page 9, lines 4-6).

With respect to independent claims 3 and 10, the applied portions of Anandakumar do not disclose or suggest at least (1) "receiving ... parity packets ... having parity symbols generated from both the data packets [having data from a data sequence] and from replications of ... the data packets ... and reconstructing the data sequence ... without any one of a transmission and receipt of the replications" (claim 3, emphasis added), or (2) "receiving ... parity packets ... having parity symbols generated from both the data packets and from replications of ... the data packets ... [and] reconstruct[ing] data symbols in the data packets without any receipt of the replications" (claim 10, emphasis added). Rather, the applied portions of Anandakumar suggest receiving error correction information based on data that is both transmitted by a sender and received by a receiver (as opposed to being "generated ... from replications"), and reconstructing data based on the received error correction information and the data that is both transmitted and received.

For at least the above reasons, independent claims 1, 3, 8, and 10 and their dependent claims are patentable over the applied reference. Accordingly, Applicant respectfully requests allowance of these claims.

Claims 2, 4, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anandakumar as applied to claims 1-15, and further in view of Boyce (6,317,462). Applicant respectfully traverses the rejection.

Boyce is not applied by the Office Action to cure, and does not cure, the deficiency identified above in Anandakumar. For clarity and completeness, however, Applicant points out that the applied portions of Boyce suffer from at least the same deficiency identified

above in Anandakumar. More particularly, the applied portions of Boyce do not disclose or suggest at least (1) "virtual replications" as recited in claims 1 and 8, or (2) "reconstruct[ing] data [or 'the data'] ... without ... receipt of the replications" as recited in claims 3 and 10. Rather, Boyce describes generating a parity packet having parity bytes that are generated based on data in multiple separate packets, and <u>sending both the multiple packets having the data as well as the parity packet</u> (see, e.g., Boyce's Abstract). The packets may be sent or received at different times and in different orders, but they are all sent and received.
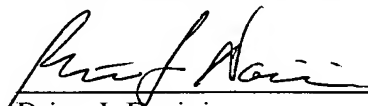
For the same reasons, the applied portions of Boyce also do not disclose or suggest at least (1) "<u>transmitting, without the virtual replications,</u> only the data sequence, the parity symbols, and the tag information, for subsequent reconstruction of the data sequence" (claims 2 and 9, emphasis added), or (2) "<u>reconstructing</u> the replications from ... the parity symbols <u>without ever actually receiving the replications</u>" (claim 4, emphasis added).

For at least the above reasons, claims 2, 4, and 9 are patentable over the applied references. Accordingly, Applicant respectfully requests allowance of these claims.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

                                        Respectfully submitted,
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